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REPLY TO OFFICE ACTION OF APPLICATION 10/669,407

EXAMINER: Stephen Avila

APPLICANT: Eric Vaughn Bleicken

ART UNIT: 3617

DATE OF OFFICE ACTION: June 15, 2004

TITLE OF INVENTION: Bow-facing Rowing System

REMARKS

Pursuant to the office action claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over duPont (4,943,250) in view of duPont (4,867,719). It was said, "A forward facing device is disclosed by duPont (4,943,250) with auto-feathering and manual fixing." We disagree with the characterization of duPont '250 patent having "auto-feathering." In the duPont '250 patent has an oar with a vertically mounted hydrofoil at the end of the oar. A hydrofoil is used instead of a blade and is mounted vertically. Throughout the power stroke, the hydrofoil maintains a substantially constant angle to the longitudinal axis of the boat. Also, the hydrofoil itself maintains a 90-degree angle with the water, as opposed to being parallel, as when feathering. The hydrofoil is vertical and 90 degrees with the surface of the water, whereas feathering means horizontal and on a plane parallel to the surface of the water.

Neither the '250 patent, nor the '719 patent have feathering oars. According to <http://www.fact-index.com/r/ro/rowing.html> the term "feather means" means "parallel to the water."^{1[1]} According to the Random House CollegeDictionary (revised edition) p. 483 "feather" means "to turn an oar after a stroke so that the blade becomes nearly horizontal, and hold it thus as it is moved back into position for the next stroke. The On-Line version of the Merriam Webster Dictionary states that feather means "2 a : to turn (an oar blade) almost horizontal when lifting from the water at the end of a stroke to reduce air resistance." This is how experienced rowers and our application uses the term "feather." Nowhere in the duPont '250 patent is feathering disclosed. Nor is there "manual fixing," which means to lock the blade in the power position for maneuvering.

Now to "auto-feather," as was used in claim 1, unlike a regular row boat where the rower must rotate the shaft of the oar and make a conscious effort to feather, with auto-feathering the blades of the oar *automatically* feather without requiring a turn of the handgrip. I.e., during the return stroke simply by pushing forward on the oars the spring loaded blades return to the horizontal position so that they are parallel to the surface of the water to minimize wind resistance. Optimally, feathering should be done in such a way so as to skim the surface in order to provide stability to a fast hull design.

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- ^{1[1]} The complete sentence reads, "The stroke begins with the oar out of the water with the blade feathered, or in other words parallel to the water." It also defines feathering as "Feather -- To turn the oar so that its blade is parallel with the water (opposite of 'square')." "